FIG. 1.

(PRIOR ART)

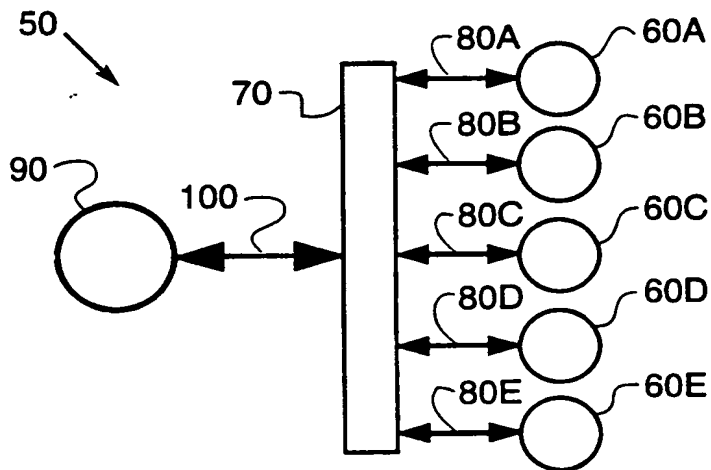**FIG. 2.**

PATTERNS TO BE
MEMORIZED

PATTERNS TO BE
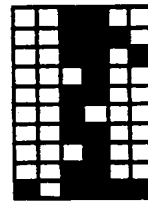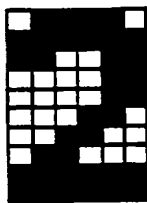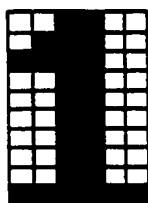RECOGNIZED
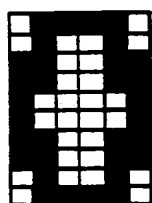
FIG. 3.

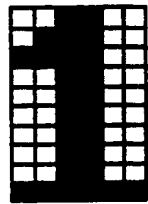PATTERN RECOGNITION

| t=0 | t=2.5 | t=5 | t=7.5 | t=10 |

S^1

TIME

FIG. 4.

DEMODULATED OUTPUT (V) vs. FREQUENCY (kHz)
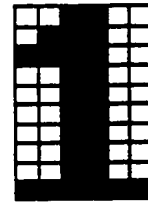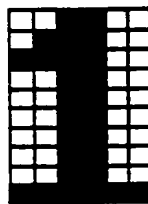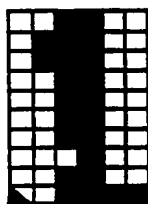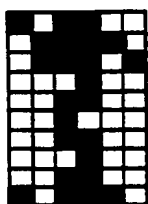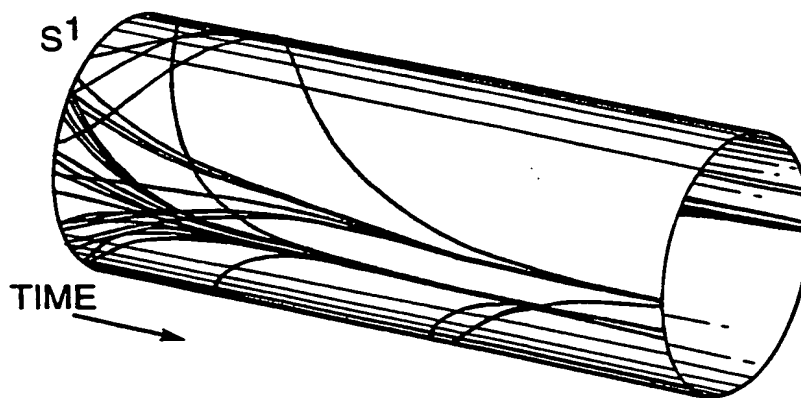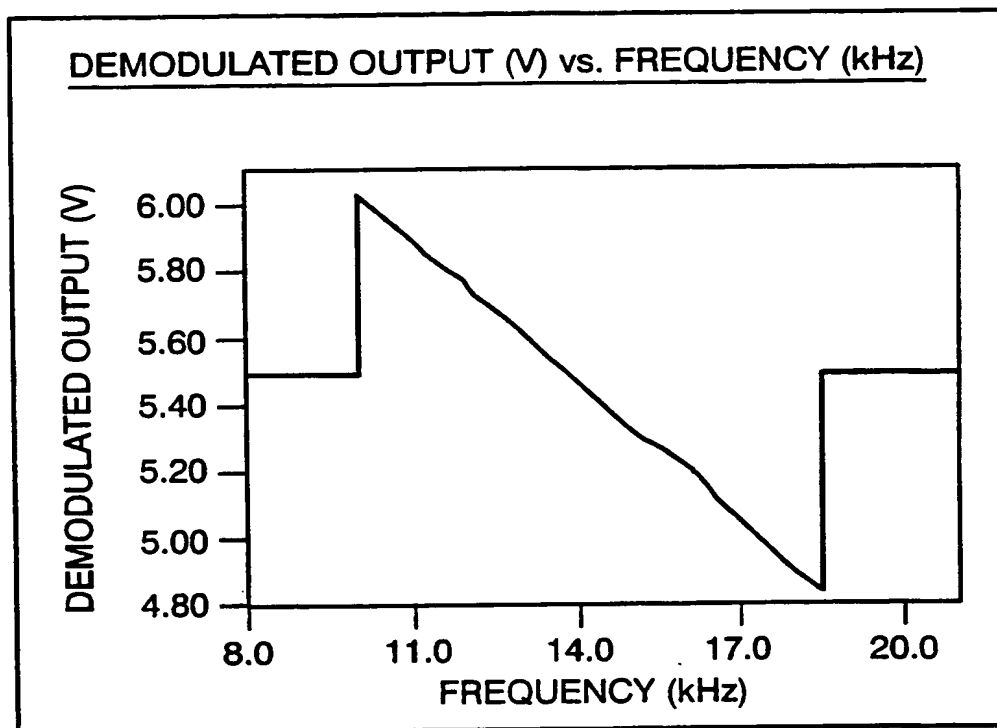
FIG. 5.
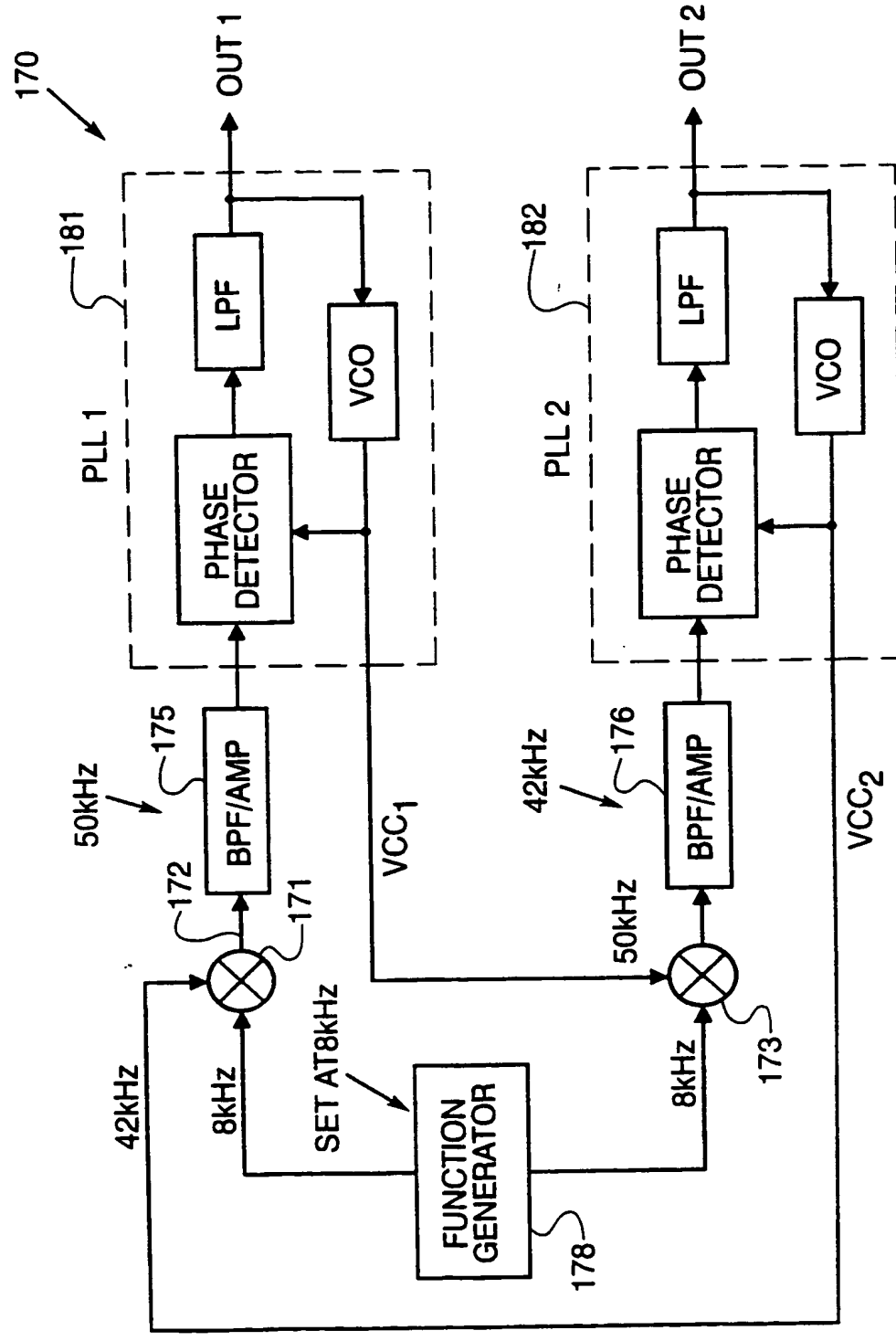
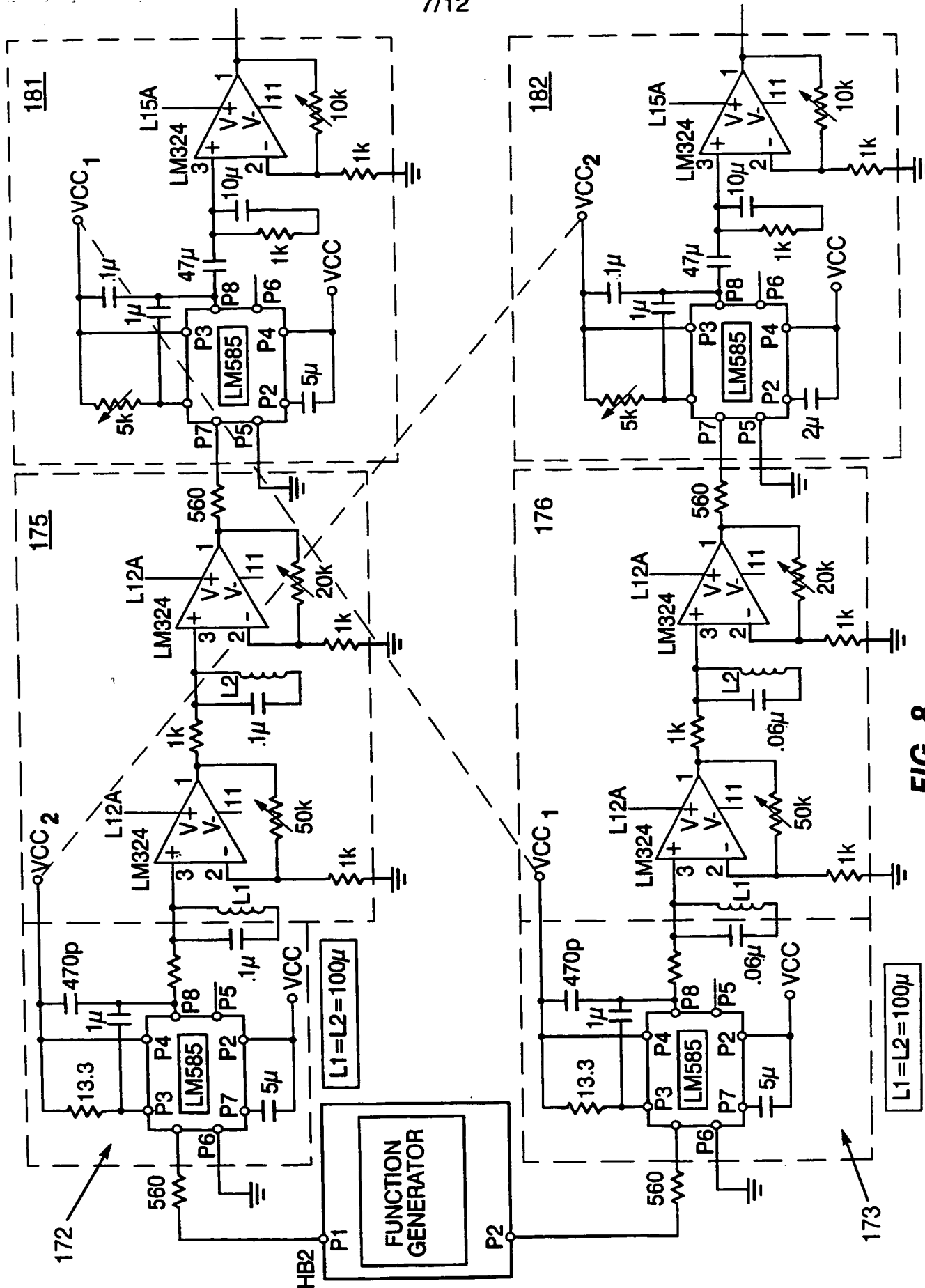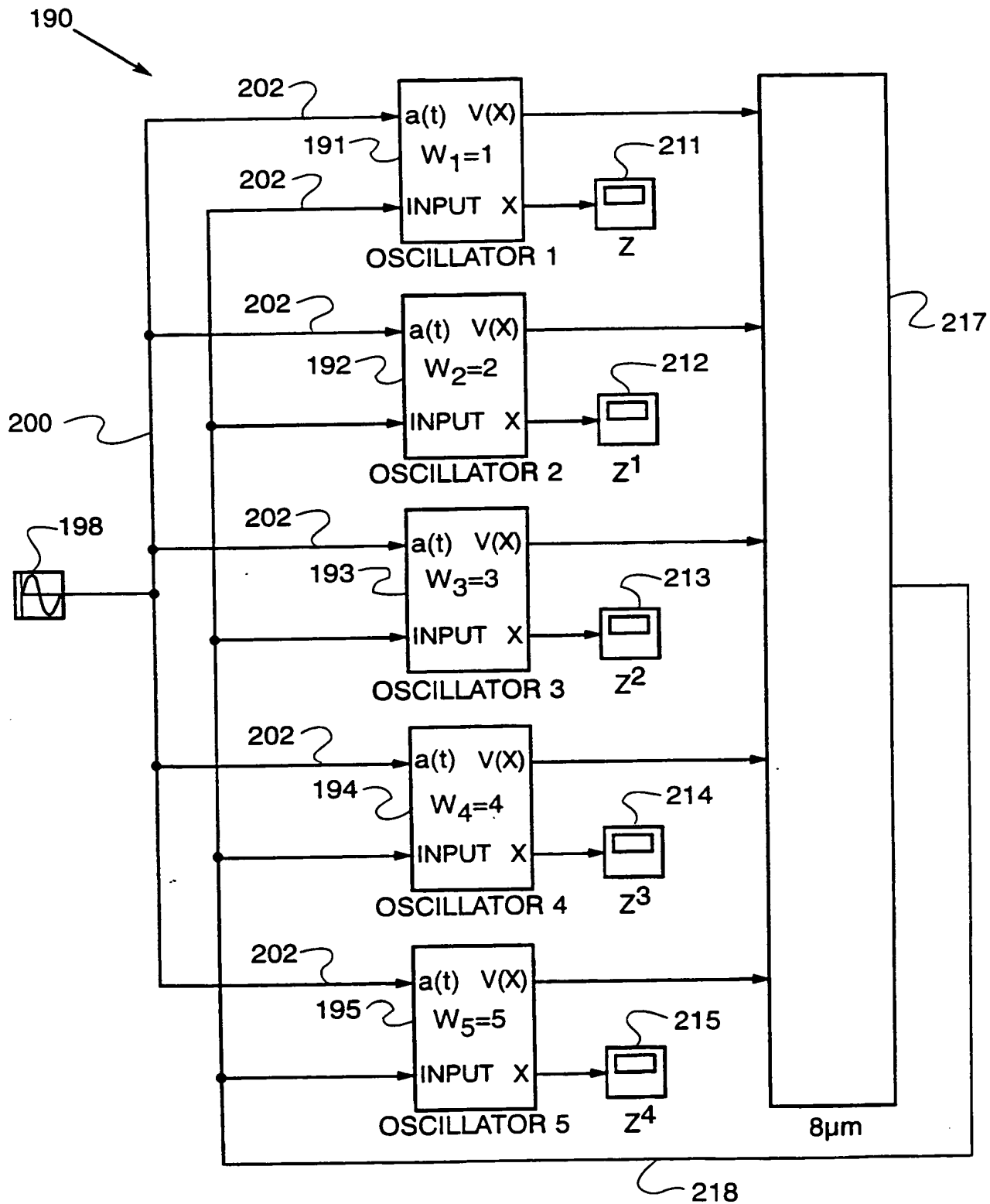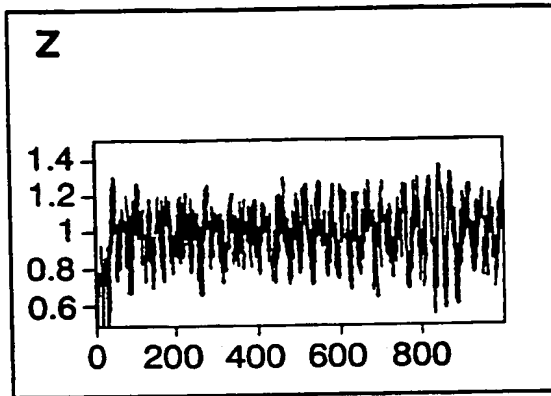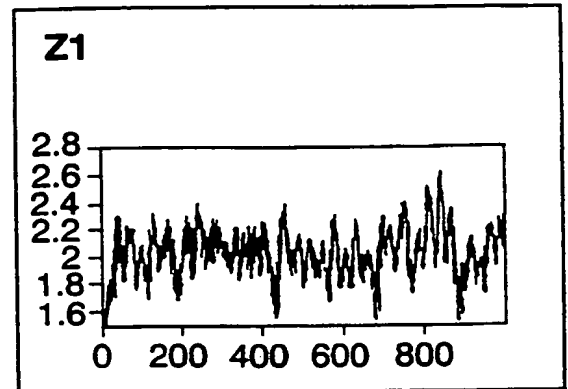**FIG. 6.**
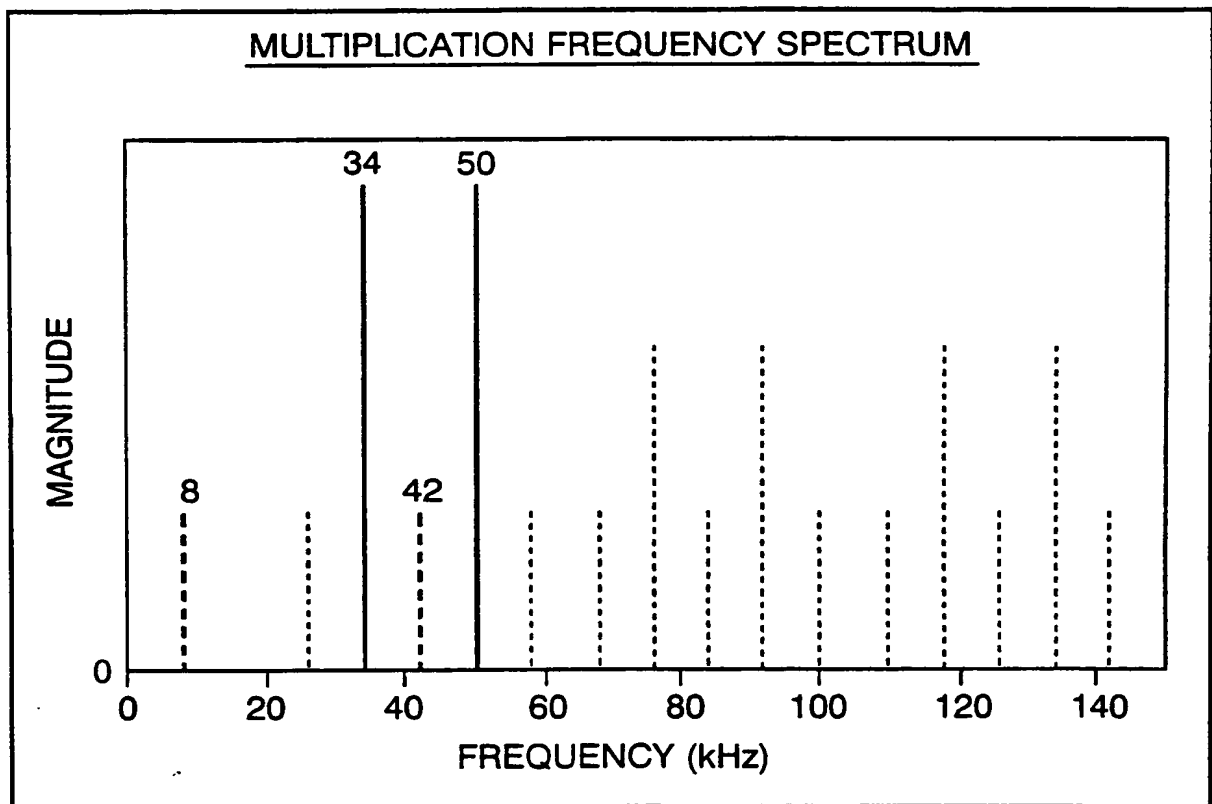
FIG. 7.
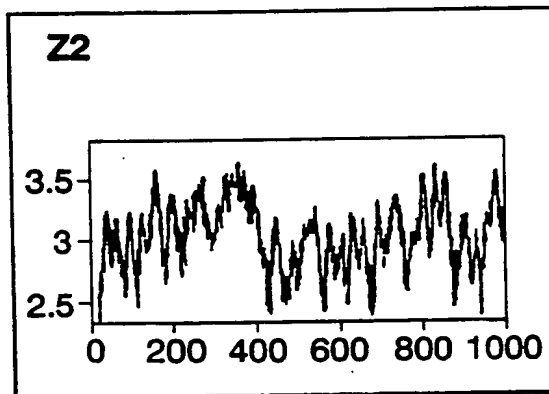
FIG. 8.

FIG. 9.

FIG. 10A.

FIG. 10B.
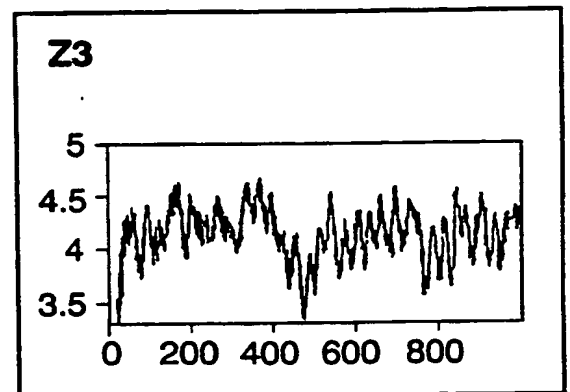

FIG. 10C.

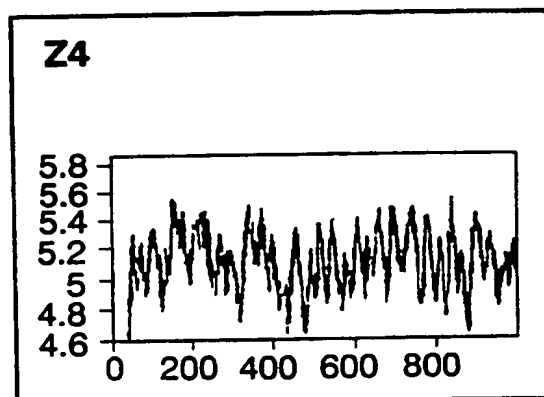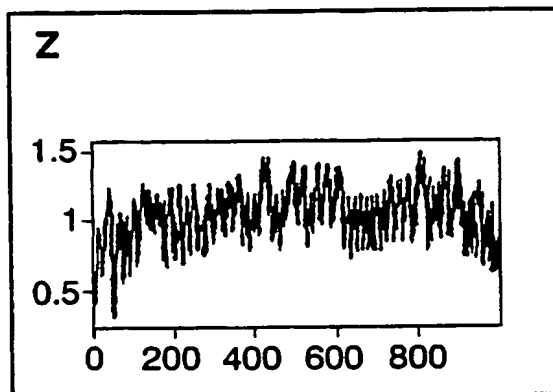

FIG. 10D.

FIG. 10E.

FIG.11A.

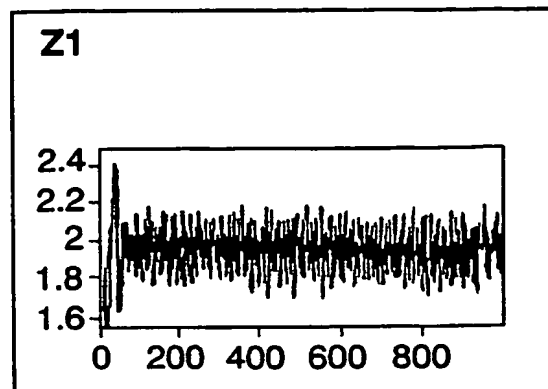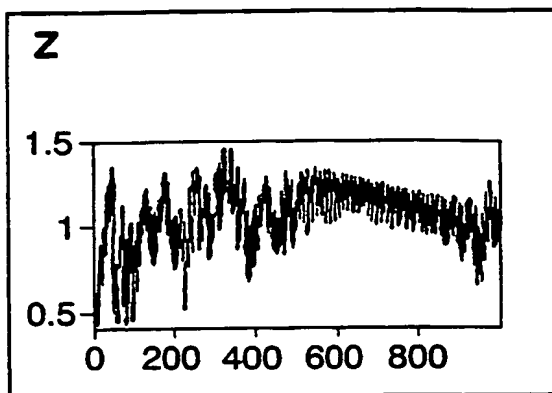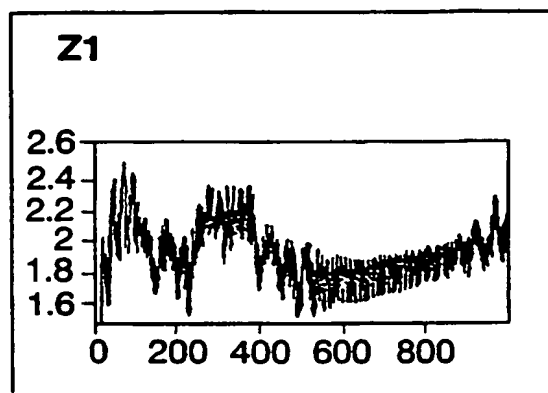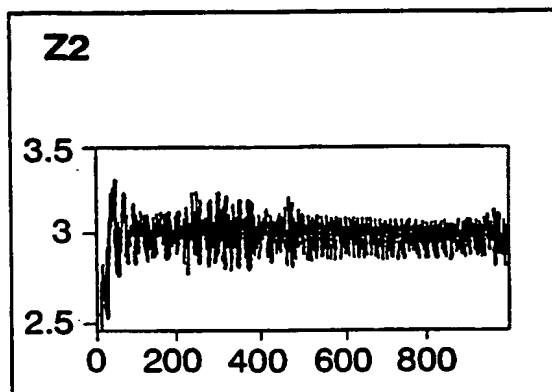FIG.11B.

FIG.11C.

FIG.11D.

FIG.11E.

Z

FIG. 12A.

Z1

FIG. 12B.

Z2

FIG. 12C.

Z3

FIG. 12D.

Z4

FIG. 12E.

FIG. 13A.

FIG. 13B.

FIG. 13C.

FIG. 13D.

FIG. 13E.